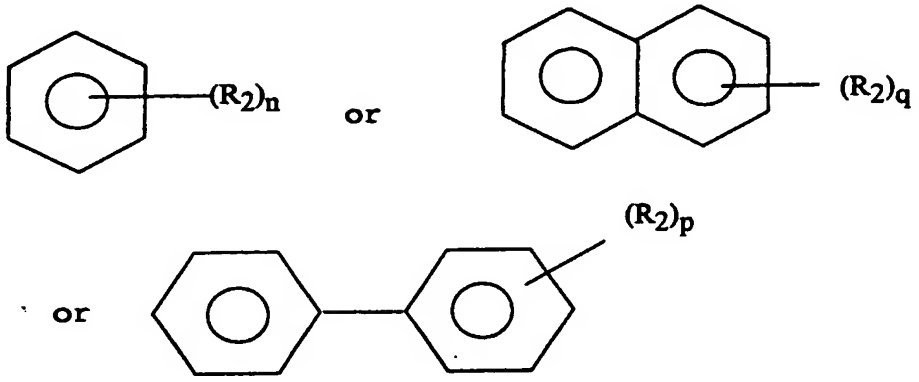
WHAT WE CLAIM IS

1. A compound having the following general formula (A):

$$R(CONH-CHR_1OH)_m \qquad (A)$$

wherein:

- R represents a residue obtained by substituting m hydrogen atoms by a compound selected from



or a saturated aliphatic chain, linear or branched, having from 2 to 18 carbon atoms or an unsaturated aliphatic chain, linear or branched, having from 2 to 18 carbon atoms and with at least one double bond;

wherein R_2, the same or different when n, p or q are greater than or equal to 2, represents a linear or branched alkyl group, having from 1 to 18 carbon atoms;

n varies from 0 to 4;

p varies from 0 to 6;

q varies from 0 to 8;

- R_1, the same or different, represents a hydrogen atom, an alkyl group optionally substituted, having from 1 to 6 carbon atoms or an aromatic group optionally substituted;
- m is equal to 2, 3 or 4.

2. The compound according to claim 1, characterized in that, when R represents a phenyl radical and m is equal to 2, the substituents $-(CONH-CHR_1OH)_m$ are in ortho, meta or para position.

3. The compound according to claim 2, characterized in that, the substituents $-(CONH-CHR_1OH)_m$ are in meta or para position.

4. The compound according to claim 1, characterized in that, when R represents a phenyl radical and m is equal to 3, the substituents $-(CONH-CHR_1OH)_m$ are in position 1,3,5 or 1,2,4.

5. The compound according to claim 1, characterized in that, when R represents a phenyl radical and m is equal to 4, the substituents $-(CONH-CHR_1OH)_m$ are in position 1,2,4,5.

6. The compound according to claim 1, characterized in that, when R represents a naphthalene radical and m is equal to 2, the substituents $-(CONH-CHR_1OH)_m$ are in posi-

tion 2 and 6.

7. The compound according to claim 1, characterized in that, when R represents a biphenyl radical and m is equal to 2, the substituents $-(CONH-CHR_1OH)_m$ are in para position.

8. The compound according to claim 1, characterized in that m is equal to 2.

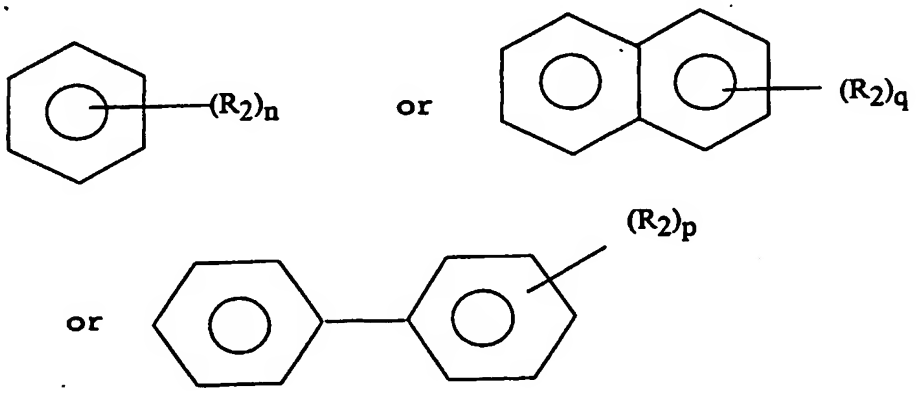
9. The compound according to claim 1, characterized in that n, p and q are equal to 0 or 1.

10. Use of the compound having the following general formula (A)

$$R(CONH-CHR_1OH)_m \qquad (A)$$

wherein:

- R represents a residue obtained by substituting m hydrogen atoms by a compound selected from



or a saturated aliphatic chain, linear or branched, having from 2 to 18 carbon atoms or an unsaturated

aliphatic chain, linear or branched, having from 2 to 18 carbon atoms and with at least one double bond;

wherein R_2, the same or different when n, p or q are greater than or equal to 2, represents a linear or branched alkyl group, having from 1 to 18 carbon atoms;

n varies from 0 to 4;

p varies from 0 to 6;

q varies from 0 to 8;

- R_1, the same or different, represents a hydrogen atom, an alkyl group optionally substituted, having from 1 to 6 carbon atoms or an aromatic group optionally substituted;
- m is equal to 2, 3 or 4

as monomer in polycondensation and polymerization reactions.

11. Use of a compound according to one of the claims from 2 to 9 as monomer in polycondensation and polymerization reactions.

12. The use according to claim 10, wherein the polycondensation and/or polymerization reactions are reactions with the corresponding comonomers to produce saturated or unsaturated polyester resins with aromatic polyacids, polyamide resins, polyurethane resins, liquid crystal

resins or polymers, PET.

13. A polymer which can be obtained by the polycondensation of terephthalic acid with the glycol of 1,4-benzenedicarboxyamide having the following structure

$H-[O-CO-C_6H_4-CO-O-CH_2-NH-CO-C_6H_4-CO-NH-CH_2]_r-OH$

wherein r is greater than or equal to 4.

14. Use of the polymer according to claim 13 for the production of packaging containers.

15. Use of the polymer according to claim 13 for the production of packaging containers for carbonated drinks and products sensitive to oxygen such as wines, beer, liquors, soft drinks, food substances.

16. A process for the preparation of the compound according to one of the claims from 1 to 9, according to the following reaction

$R(CONH_2)_m + R_1-CHO \rightarrow R(CONH-CHR_1OH)_m$

wherein R, m and R_1 have the meanings previously indicated, in a slightly basic solution

at a temperature ranging from 10°C to 180°C, at a pressure ranging from 0 to 15 atm and for a time which varies from 5 minutes to 5 hours.

17. The process according to claim 16, characterized in that the reaction is carried out in the presence of a basic anionic resin insoluble in the reaction medium, wherein the reaction medium is water.

18. The process according to claim 16, characterized in that the temperature varies from 60°C to 120°C.

19. The process according to claim 16, characterized in that the pressure is within the range of 2 to 5 atm.

20. The process according to claim 16, characterized in that the reaction is carried out for a time varying from 20 minutes to 1 hour.

21. The process according to claim 16, characterized in that $R(-CONH_2)_m$ is selected from amides of terephthalic acid, isophthalic acid, 2,6-naphthalenedicarboxylic acid, trimesic acid, pyromellitic acid or trimellitic acid.

22. The process according to claim 16, characterized in that R_1CHO is selected from formaldehyde or benzaldehyde.